Applicant: Filed:

Heath, et al.

Title:

July 27, 1999

COMPUTER IMPLEMENTED NUCLEIC ACID

ISOLATION METHOD AND APPARATUS

AMENDMENT AND RESPONSE

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removing and separating a sample.

7. (Amended) The computer system of claim 6, wherein the computer readable medium comprises:

a software module\comprising:

a centrifugation sub\module for issuing commands initiating centrifuging of a sample for a centrifuge time and a centrifuge speed;

an aspiration sub-module for issuing commands initiating aspirating a sample at a selectable aspiration speed ranging from gentle to vigorous to remove a volume of fluid from a sample;

a mixing sub-module for issuing commands initiating mixing a sample;

a dispensing module for issuing commands-initiating dispensing into a sample an amount of a specific reagent;

a temperature control module for issuing commands to control the temperature of a function;

a removal module for issuing commands to remove material from a sample;

a separation module for issuing commands to separate a sample into components; and

a combination removal and separation module for issuing commands to control separating and removing a sample.

(Amended) A control module for controlling the operation of an automated nucleic 9. acids isolation apparatus, the module comprising:

a processor; and

a program module comprising a set of machine readable instructions for issuing commands to the automated nucleic acids isolation apparatus to perform a series of steps, comprising:

centrifuging a sample;

aspirating a sample at a selectable aspiration rate from gentle to vigorous; mixing a sample;

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adding a reagent to the sample;

controlling the temperature of an isolation function;

removing material from a sample;

separating a sample; and

separating and removing a sample.

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15. (Amended) The computer module of claim 14, wherein the plurality of sub-modules comprises:

a centrifuge sub-module for issuing commands initiating centrifuging of a sample for a centrifuge time and a centrifuge speed;

an aspirate sub-module for issuing commands initiating aspirating a sample at a selectable aspiration speed ranging from gentle to vigorous to remove a volume of fluid from a sample;

a mixing sub-module for issuing commands initiating mixing a sample; a dispensing module for issuing commands initiating dispensing into a sample an amount of a specific reagent;

a temperature control module for issuing commands to control the temperature of a function;

a removal module for issuing commands to remove material from a sample;

a separation module for issuing commands to separate a sample into components; and

a combination removal and separation module for issuing commands to control separating and removing a sample.

## REMARKS

## Rejections Under 35 U.S.C. § 103

Claims 1-7, 9-10 and 14-18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Carlson et al. (U. S. Patent No. 5,773,221) in view of Kelley et al. (U. S. Patent No. 5,679,154), in view of Vogel et al. (U. S. Patent No. 5,922,320) in view of Pfost et al. (U.S. Patent No. 5,369,566) in view of Bacus et al. (U. S. Patent No. 4,175,860).